Executive Development

Alternative Methodologies for Managing Change

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CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

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Abstract

The problem was that organizational change continued to cause negative impacts within Chesterfield Fire and Emergency Medical Services (CFEMS). The research purpose was to identify, describe and recommend change management processes that would improve the implementation of change within CFEMS. Descriptive research determined; what are change management model processes; what change processes are currently being used by CFEMS; what change processes are other fire departments using; and what are change management processes that CFEMS could use to improve the outcome of organizational change? The research procedures included literature review, interviews and a survey. The results revealed a number of change management processes and included recommendations on how the organization could improve on current change management processes already in use.

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Introduction

In today's fast paced business environment change is a constant force. Advances in technology, time compression and efficiency demands all combine to create an atmosphere of constant change and adaptation (Kotter, 1996). Organizations are constantly reshaping themselves to remain competitive in an ever-changing business environment (Prichett, 1996). And, as noted management expert Tom Peters promotes, the scheme for excellence in organizations involves care of customers, constant innovation (change) and motivated people (Peters & Austin, 1985).

Managing change in any organization is not an easy task and with change comes organizational resistance and conflict (Lucas, 2004). People managing change must overcome self interest, anxiety (fear of the future), fear of failure, differences of opinion, relationships and people simply trying to maintain the status quo (Gasaway, 2004). Existing practices, otherwise known as "the way we do business" contribute to a foundation of resistance to the unknown that change represents (Brynes, 2005). Additional complexities are added when an organization is large, multifaceted or its leadership has not adopted or employed organizational change management methodologies.

As tradition bound as the fire service is thought to be, it has not been immune from this paradigm shift. Advances in technology as well as budgetary pressures and quality initiatives have forced many departments into significant organizational and cultural changes. While fire departments commonly operate at emergency scenes under rapidly changing conditions and with uncertain outcomes, there are wide variations in how well they adapt and respond to internal organizational change.

Large scale projects undertaken by Chesterfield Fire and Emergency Medical Services (CFEMS) have resulted in significant operational and process changes within the organization. Over the past five years CFEMS has implemented new, comprehensive, computer-based dispatch, records management and staffing management systems. Other new initiatives have included the introduction of mobile data computers, handheld computers and thermal imaging cameras into operational environments. The department has also undertaken other projects of significance including implementing a system of recovering revenue from emergency medical transports and volunteer integration improvement efforts.

The research problem is that change continues to cause negative impacts within CFEMS including confusion, frustration, lowered morale and decreased productivity among personnel affected by the changes in the organization. The purpose of this research is to identify, describe and recommend organizational change management processes that will improve the implementation of organizational change within CFEMS.

Descriptive research will be utilized to guide this effort. The questions that will be researched are:

1. What, if any, are organizational change management model processes?

2. What, if any, are the organizational change processes currently being used by CFEMS?

3. What, if any, organizational change processes are departments of similar size using?

4. What are the organizational change management processes and practices that CFEMS could use to improve the outcome of organizational change?

Background and Significance

Located in the metropolitan Richmond area of central Virginia, Chesterfield County encompasses 446 square miles. The Chesterfield Fire and Emergency Medical Services (CFEMS) department serves approximately 300,000 people with a combination department of over 600 career and volunteer personnel staffing 29 fire and rescue stations. The department responded to over 37,000 calls for service in 2004 (Chesterfield County, 2005).

In 2001, Chesterfield County enacted an ordinance that allows CFEMS to charge for EMS services. Known as "Revenue Recovery", this system of billing patients who are treated and transported to hospitals resulted in a number of procedural and technological changes within the organization. Due to budgetary and political influences, the preparation time for this initiative was very compressed. This comprehensive organizational change occurred over a period of just six months from ordinance approval to the establishment of patient billing. Owing to the size, complexity and political significance of this initiative, a dedicated departmental project management team was assembled who worked full time on launching the revenue recovery system. Billing for EMS was a sea change for the organization and it caused a number of internal political and environmental conflicts.

Later in 2001 the County signed a contract for a comprehensive public safety data communications system (PSDCS). This included a new computer-aided dispatch system (CADS), mobile data communication systems and comprehensive records management system for CFEMS. The implementation of this project and its components was a major undertaking for the organization. A number of technological innovations were introduced and new equipment and administrative processes had to be learned. This caused confusion and resistance on the part of some personnel who were familiar and more comfortable with the old, existing systems.

Further, many personnel were resistant to and didn't see the benefit of introducing additional new technology into the department's operational environments.

During the same time period, CFEMS contracted to purchase and deploy a computer-based staffing management system. The department maintains a very complex system of staffing and leave management processes with the goal of providing appropriate staffing for operational needs while allowing for maximum leave usage among its members. The need to modify, and in some cases simplify the existing manual staffing and leave management processes to enable the purchased software to automate these practices caused a number of changes for the career members of the organization. This primarily affected the way in which these career personnel managed their leave usage and supervisory personnel maintained appropriate staffing levels on apparatus.

With the exception of the Revenue Recovery project, each of the major initiatives noted, due to their size, complexity and organizational impacts had a minimum three to four year ramp up time from introduction to systematic deployment to the end users. In attempting to manage the large scale change that accompanied these initiatives, each project was assigned an organizational project manager. In the case of the revenue recovery and staffing management initiatives, multi-person project management teams were assembled from members taken from various divisions and ranks within the organization. In the case of PSDCS, this author served as the CFEMS project manager sitting on a multi-agency, County-level project management team.

These initiatives and the associated changes brought about as a result of their implementation have caused a number of issues within CFEMS. The sheer volume and pace of change over the past five to six years has been overwhelming for many members. Additionally, in spite of project management efforts, some of the technology and processes deployed did not

work well or functioned as originally envisioned by the organization. This has caused frustration among the members as additional project changes and adjustments were made. Further, the amount and frequency of change has caused consternation among the members as each successive new initiative was on the horizon. There have also been different degrees of organizational project support varying from full-fledged, multi-member project teams to a single project manager with additional job duties and responsibilities.

CFEMS has made significant commitments of personnel, financial and time resources to support these endeavors. In terms of personnel hours, many of the people assigned to the project management teams weren't replaced in their normal duty assignments causing the need for others to work to fill the void created by their absence. The end result has been that many members became frustrated with the "collateral damage" inflicted by ongoing change and became resistant to future change, even when it seemingly was to their benefit. There has also been an uneven application of change management techniques with each project handled differently in terms of how change resulting from the project was identified and managed. The combined organizational implication is that future change efforts may be met with wide-scale reluctance making initiatives more difficult to be effectively and efficiently enacted by the organization.

As the former manager of a large project within CFEMS, this author has seen the results of improperly managed organizational change. It is important that lessons learned from these recent experiences be reviewed in order to see whether, given the conditions noted, change could have been better managed within CFEMS. And by extension, how can similar projects be administered to ensure that change is properly identified and managed when implementing future organizational initiatives?

This research specifically relates to the United States Fire Administration's (USFA) mission of reducing life and economic losses through fire service leadership, advocacy, coordination and support (United States Fire Administration [USFA], 2004). The ability for fire service organizations to effectively manage change allows for a proactive and constructive approach to the USFA operational objective of fire service organizations maintaining the ability to respond appropriately to emerging issues. It is only through organizational change that fire departments can address new, positive approaches and initiatives that will reduce the loss of life from fire and the overall risk to citizens from multiple hazards within their jurisdictions. The research conducted for this paper also relates to the information taught in the National Fire Academy (NFA) Executive Development course comparative to recognizing the need for and initiating organizational change. (Federal Emergency Management Agency United States Fire Administration, National Fire Academy [FEMA, USFA, NFA], 2004).

Descriptive research carried out for this paper will determine whether current change management practices exist within CFEMS and if so, whether they are sufficiently recognized and properly utilized within the organization. Further, research will be conducted to determine what other organizations do to manage change and if there are better alternatives for CFEMS to consider when future initiatives will produce organizational change.

<div align="center">Literature Review</div>

The first descriptive research question asks what, if any, are organizational change model processes? It is readily evident from a review of pertinent literature that there are a number of organizational change management model processes. Some are very broad and address the overall management of change within organizations. Many are specific to managing change within particular projects or initiatives. The most common models and processes involve

managing changes in very specific organizational entities (e.g. processes, contracts, orders, customer requests, etc.). Regardless of the model used, this research indicates that it is vitally important that people in an organization understand that change is occurring and that the expectation of change is clearly communicated by organizational leadership. As taught in the National Fire Academy's *Executive Development Course*, change involves three distinct phases; an end, a neutral zone and a beginning. The first phase constitutes the end of doing things the old way. The neutral zone is that period when the change is being transitioned and the beginning is the "official" kick-off of the new way of doing business. (FEMA, USFA, NFA, 2004).

Prior to initiating change it is also important that the change be classify as to its type. Most change can be categorized into either technical or adaptive change (Heifetz & Linsky, 2002). Technical change is oriented to the overall organization and involves solving problems or creating change using current known and available resources. Adaptive change is people-oriented; highly internal to individuals and includes the need for changes in attitude and behaviors within individuals throughout an organization. This type of change is far more difficult and ambiguous, as it cannot be dealt with using existing organizational practices, procedures or technology. Adaptive change requires new paradigms and that presents problems for people willing to lead adaptive change. Those affected by the change are normally unable to envision the new environment, which, by human nature, leads to resistance and anxiety. This causes many organizational leaders to attempt to apply a technical change to a particular situation when it actually requires an adaptive change. Heifetz and Linsky (2002, p. 14) write: "Indeed, the single most common source of leadership failure we've been able to identify – in politics, community life, business or the non-profit sector – is that people, especially those in positions of authority, treat adaptive changes like technical problems".

Many of the reviewed change management models are cyclical in nature and involve phases; analyzing the problem or change, planning for or anticipating the change, acting on and implementing the change, and evaluating the effects of the change. The National Fire Academy, in its Executive Development curriculum, advances the "APIE" model which stands for Analysis, Planning, Implementation and Evaluation. (FEMA, USFA, NFA, 2004). This tool seeks to ensure that all phases of change are clearly identified and addressed including the need to evaluate whether the change is working as originally envisioned. Another, more detailed, cyclical process promoted for fire service organizations notes seven steps including; identifying the problem; listing alternatives; developing solutions; setting goals and objectives; implementing the chosen solution(s), monitoring the implementation; and evaluating the results of the implementation (Coleman & Granito, 1988).

One distinctly different approach is to begin change with broad, non-specific objectives and adapt as the change occurs. Promoted as an improvisational model of change management, this theory advocates that technological change is a fluid environment due to the nature of evolving technology and dynamic organizations. In this model, experimentation and intuitive learning are adapted into the change management process (Orlikowski & Hofman, 1997). This theory and its "adapt as you go" approach addresses the often difficult aspects of initiating change that revolves around or includes technology. So often the technology does not immediately function as envisioned or the organization does not embrace the technological change. This results in institutional conflict when the end result of the change is not what was originally promoted by the organizational leadership. The difficulty with this approach is the dynamic and adaptive nature used to manage the change.

Similar to that unstructured approach, Tom Peters (1985) promotes an innovation process that involves a fairly fluid, yet systematic effort. Peters notes "… traditional management thinking misses the point. For the most part, management writing, and typical discussions even among practicing managers, focuses on structures, monetary incentives and planning techniques" (p. 116). His model involves the acknowledgement that a "messy world" requires constant innovation and change. From this need for change evolves experimentation and various attempts at solutions and improvements. The model also requires champions (or skunks as Peters refers to them) who have a vested interest in promoting the innovation or change and seeing it succeed. This paradigm involves the champions being able to work "off-line" to perfect the innovation and them being promoted as heroes when the change is brought forth to the overall organizational culture.

Another, non-traditional theory espoused is that major change is not always intentionally initiated or even controlled but rather spreads like an epidemic when one small idea or trend takes hold and is adopted by a majority of a population (Gladwell, 2002). This theory does not really promote managing change but rather embracing the idea that change occurs outside of normal control methods and that one should realize that unexpected change can occur without formal initiation by people or organizations.

Change is a constant in the fire service just as it is in the business world. However, many of today's fire service managers lack the tools and techniques to effectively implement change in their fire service organizations (Sargent, 1996). Today's fire service managers must develop and rely on keen managerial skills in order to properly manage change (Prouty, 2004). Further, organizational initiatives that are technologically based are not uncommon. These efforts often create difficulties for fire service organizations that are attempting to integrate technology into

their operational environments (Love, 1997). The management of change within fire service organizations must take into account the various relationships influencing organizational change. Among these relationships are those between the organization and its environment (e.g. political, financial), between the employee and the formal organization, inter-group relationships (e.g. unions, career/volunteer) and interpersonal relationships between organizational members (Coleman & Granito, 1988).

Apart from the model used, it is also important that the impacts on the organization and its business and operational environments be assessed (Lientz & Rea, 1998). This can often be accomplished using the tools and techniques included within the various change management models, but if the model does not address these areas it is important that the person, committee or workgroup managing the change do so. Most importantly, change must be led as well as managed. In his book, *Leading Change*, Kotter (1996) recommends that a guiding coalition be assembled that includes personnel that have positional power, expertise, creditability and leadership. This approach promotes an equal balance of knowledge, management ability and leadership skills to enact change, which is accepted by the people in an organization. This position is reinforced by research on project and change management conducted for the Department of Fire and Rescue Services of Montgomery County, Maryland. The research notes the need for inclusion of members at all levels of the organization when managing change. The buy-in and interest garnered by early inclusion and participation of various organizational members is invaluable in terms of the ultimate success of the change implementation. (Love, 1997).

The management of change within organizations is very complex. There is any one of a number of ways to conduct this important task. As important as the model or process used is how

change is directed by organizational leaders. One key aspect of leading and managing change is communications. If organizational change efforts are effectively and efficiently managed, supported with strong leadership and properly communicated, the initiative should be successfully implemented within the organizational culture.

The second research question asked what, if any, are the organizational change processes currently being used by CFEMS? Chesterfield County government manages in a Total Quality Management (TQM) environment. TQM has evolved from the teachings of W.E. Deming, which promotes a systems approach to continuous improvement (Deming, 1986). Although Deming did not truly promote TQM as a management tool and in fact rejected the terminology (Hellsten & Klefsjo, 2000), many businesses and public organizations have adopted these tools for use in managing and improving business practices. Chesterfield County's *Continuous Improvement Guide* employs Deming's "Plan, Do, Study, Act" (PDSA) cycle to promote the management of change (Chesterfield County, 1999). Similar to the APIE model, this cyclical process attempts to plan for and anticipate the change, act to implement the change, study the influence of the change and then modify or adapt aspects of the change that did not proceed as originally intended.

Due to the organizational impact that the Revenue Recovery project had on CFEMS, the dedicated management team for that project elected to perform change management techniques on the initiative. Among the tools used by this team was the change management model taken from the National Fire Academy course *Strategic Management of Change* (SMOC) (Avsec, 2002). The team reported finding the model effective in identifying critical issues that may have otherwise been overlooked due to the expedited nature of the project. Although the Revenue

Recovery Implementation Team successfully utilized this model, it has not been formally

adopted by CFEMS as a standard, organizational change management model.

Another tool periodically employed by CFEMS is a model entitled the *3-P Management*

Model Form (Appendix A). The 3 P stands for programs, projects and processes and this model

is intended to be used as a guide to document the implementation and management of these types

of organizational initiatives. Use of the form identifies what the initiative is (program, project or

process) and contains various instruments to document and manage the many aspects of these

proposed changes. Among the included instruments that are advantageous to change

management is the SIPOC model. SIPOC identifies the suppliers, inputs, processes or programs,

outcomes (desired) and customers that play a role in the new or revised program, project or

process being managed. This allows users to identify the organizational impacts on all of the

parties affected by the pending change.

CFEMS formally maintains an organizational change management model in its *Strategic*

Management Guide (Chesterfield Fire & EMS, 1999). Similar to the change management model

formally taught in the SMOC course at the National Fire Academy, this model uses four primary

phases; analysis, planning, implementation and evaluation (Appendix B). The analysis phase is

designed to clearly identify the change and its impacts. The planning phase seeks to recognize

the forces for and against the change, identify the primary visionary for the change, set the

overall goals and objectives, determine which type of change method will be employed

(technical, structural, managerial or people) and determine what types of techniques will be used

to promote the change. The implementation phase calls for a pilot or test to be run on the planned

change prior to full organizational implementation. This phase also calls for the change manager

to engage those affected by creating a sense of urgency about the pending change and to ensure

that the change is communicated thoroughly and completely to the organization. The final phase

involves evaluation of the pilot, institutionalizing the change within the organization and

continuing to monitor and maintain the change. The department's leaders and managers received

some training on this model several years ago when it was implemented during a strategic

planning process. There has been no subsequent training or wide spread use of this model since

then.

Due to progressive leadership in both CFEMS and Chesterfield County, the department

has several change management tools and processes at its disposal. Some of the processes are

more familiar to personnel than others but all have been used at one time or another. The

departmental members are practiced in quality initiatives and the management of change.

The third question posed in this research asks what, if any, organizational processes are

departments of similar size using? In reviewing the efforts of organizations of like size to

CFEMS, Prince William County, Virginia Fire Department, uses a *Framework of Analysis*

document which guides the user through a series of questions that document the effects of

change within that department (Prince William County, 2005). Among the areas addressed in the

document are background of the issue, situational assessment, pending issues, alternatives and

recommendations.

Located in the metropolitan Richmond area with Chesterfield County, Henrico County

Virginia's fire department is of a very similar size and makeup as CFEMS. Henrico Assistant

Fire Chief Nick Caputo reports that Henrico County Fire does not employ a formal change

management model. In his role as an organizational leader and when managing projects and

initiatives, he observes that he has used the change management model formally taught in the

NFA *Strategic Management of Change* course (N. Caputo, personal communication, January 12, 2006).

At the time that his research paper was studied, Michael T. Love (1997) writes that Montgomery County Maryland's Department of Fire and Rescue Services employed no formal change management procedures in spite of having implemented a number of large projects (p. 1). One result of not having a formal, systematic approach to managing change was that the department missed identifying organizational impacts and key indicators that often resulted in poorly managed change, which was ultimately resisted by the organizational members.

Like Chesterfield County, the City of Virginia Beach, Virginia began adhering to Deming's principles of Total Quality Leadership (TQL) in the late eighties and early nineties (Sargent, 1996). Also like Chesterfield County, Virginia Beach employees became frustrated by a lack of education and training in the TQL / TQM methodologies and acceptance of this management philosophy was negatively affected. One observation that Sargent made of the results of this management approach is that Virginia Beach city government began to substitute productivity for quality and city employees saw TQL as a justification for "doing more with less" rather than an efficient way to manage and promote positive change (p. 6).

Fairfax County, Virginia maintains a large, urban combination fire department in the Washington, D.C. metropolitan area. Susan Herbert, that department's Strategic Planner, reports that other than their strategic planning cycle, the department does not employ a formal change management process or methodology (S. Herbert, personal communication, January 25, 2006). She does note that the department employs a system which identifies three distinct levels of change that permits an organized approach to change management. If the department identifies issues that can be accomplished in six to twelve months it is designated an immediate action

classification. If the issue or change requires work that is estimated to take 12 to 18 months, it is given a short-term designation and an organizational action plan is developed. If the issue is complicated or the anticipated organizational impact is significant, the item is classified for study and analysis. This category involves assigning the work to a committee or taskforce that is governed by a charter. The group is tasked with developing a comprehensive report on the issue, which is then communicated to the organization through a series of "town meetings" which provide feedback from the affected constituency. After the feedback is gathered a final report is generated to the fire chief who makes a decision on the issue or change. If the proposal is accepted by the chief and is approved to proceed, the change is then relegated to one of the two former categories for organizational implementation.

Literature research reveals that although many departments note that the management of change is of significant importance to their organizations, many do not maintain formal change management processes to support change efforts.

The forth research question; what are the change processes that CFEMS could use to improve the outcome of organizational change, is supported through the number of alternatives clearly identified throughout the literature review. However, the question is more appropriately addressed by the analysis resulting from the personal interviews and organizational survey performed during the descriptive research conducted for the development of this research paper.

Procedures

The descriptive research process conducted to complete this paper was primarily focused on answering the specific questions presented in the problem statement as well as providing general background for the subject matter being addressed. Specifically, the intent was to identify literature that documented change management models and processes both within and

outside of the fire service, interview key organizational leaders to gain their perspective on how change is managed within CFEMS and provide a survey instrument to the middle managers of the department to gain insight as to how they view change management within the CFEMS organizational management culture.

The research began with a search of pertinent documents at the National Fire Academy's Learning Resource Center (LRC) while this author attended the *Executive Development Course* in July 2005. A document search was conducted in an effort to identify fire service related literature that addressed the specific research questions posed. Additionally the author looked for literature that provided insight into what other fire departments had done to address the change management issues similar to those faced by the author's department. The search terms used included "change management" and "organizational change". Although this search of the LRC's computerized catalog system revealed a number of periodical articles related to managing change of specific initiatives within fire departments, few of the articles found addressed the broad subject of change as it applies to management of fire service organizations.

Another on-line search of the LRC content was conducted in November 2005 with similar results. An e-mail to the LRC staff was then sent requesting further assistance with specific emphasis on providing a list of Executive Fire Officer Program Applied Research Papers (ARP) which addressed organizational change and change management subjects. Additionally, a request was made of the LRC staff to provide the change management model which had previously been taught in the *Strategic Management of Change* course at the National Fire Academy. These requests produced an e-mailed listing of applied research papers by the LRC staff from which the author selected those that was deemed pertinent to the subject matter being studied. The task of selecting appropriate papers to read was completed by conducting a review

of the literature abstracts. Several papers were selected and an inter-library loan request was

made of the LRC and the papers were retrieved through the Chesterfield County Public Library

System. The LRC staff also provided a copy of the change management model (CMM) from the

Strategic Management of Change class via facsimile.

Additional literary research was conducted at the Chester Branch of the Chesterfield

County Library System in December 2005. The author also culled various relevant books and

articles related to change management from his personal library and cache of technical

documents. Research was also conducted via an on-line search of the Google™ Internet search

engine. The search was conducted within the beta version of the Google™ Scholar search engine

and resulted in several scholarly articles being identified that were subsequently cited in this

paper. The search words used were "change management".

Interviews were scheduled with CFEMS Fire Chief Paul W. Mauger and CFEMS Deputy

Chief of Emergency Operations James Graham. The interviews were arranged in advance either

via e-mail request or through the administrative assistant for the individual. The interview

questions were provided to each person prior to the session being conducted. The interviews

were conducted with Deputy Chief Graham on Friday, January 6, 2006 and Chief Mauger on

Monday, January 9, 2006. The intent of the interviews was to determine how these individuals,

as the primary leaders who initiate large scale organizational change, viewed the department's

change management efforts and effectiveness. The author felt it important to ascertain the overall

vision and experience of these leaders as it pertained to the subject matter being researched.

Additionally, a survey instrument was developed which was delivered to the all CFEMS

career, civilian and volunteer middle managers via an on-line survey service. The surveyed

members consisted of 38 personnel inclusive of all career battalion chiefs, volunteer district

chiefs, and civilian and uniformed division managers of the organization. The intent of soliciting feedback was to ask for response as to how these individuals viewed the organization's effectiveness in managing change and their awareness of change management methods. This survey was designed to relate to the interview questions posed to the organizational leadership enabling the results to be compared and contrasted to the views of those leaders. The survey recipients were selected as personnel who are most likely to have been tasked with leading and managing change within CFEMS. The survey instrument was constructed using the Zoomerang™ web-based survey software. An e-mail was sent to the survey members on January 10, 2006 inviting them to participate and providing an internet uniform resource locator (URL) to access the survey. Subscription to the Zoomerang™ service allowed the author to monitor participation and cull data from the survey. The respondents were given until January 16, 2006 to complete the survey. Of the 38 personnel who qualified as middle managers and were invited to participate in the survey, 21 completed the survey within the allotted time. This equates to a 55% participation rate. The survey questions are found in Appendix C of this paper.

Limitations of this research are that the response to the referenced survey is voluntary and, as such, may not necessarily represent a true sampling of the CFEMS middle managers. Actual responses to the survey are noted in the results section of this paper. It is also assumed but unverified that the answers the survey participants provided were accurate and true based on their assessment of the survey questions as they relate the survey participant's role in the organization.

Results

The descriptive research, inclusive of literature reviews, interviews, personal communications and an organizational survey conducted in support of this paper revealed a large amount of information that directly relates to the four questions presented for study.

1. What, if any, are organizational change management model processes?

The literature research revealed a number of different change management processes, methods and models. None of the models, either in the business environment or the fire service, were promoted as the primary model that was followed by the vast majority of organizations using such tools. The number of different models was almost as numerous as the types and sizes of organizations employing them. However, the variations in these models were minimal, as most were highly structured and involved a number, the most common of which was four, of formal steps to be taken to initiate and manage the organizational change. Several methods promoted a less formal approach to change with adaptation during the process being the primary tool to reach the intended organizational goal. One theory, in particular, suggested that change is not really controllable and that organizational leaders should achieve change by planting ideas among employees with the hope that the change is embraced and takes hold within their organizational environments. Many of the more structured change management processes were cyclical in nature with the beginning of the process identifying the problem or issue to be addressed, assuming a resulting change will ultimately occur. The processes then continued on to define potential alternatives, identify various organizational aspects (budgetary, personnel, etc.) affected by those alternatives, decide on one particular alternative and then implement the chosen alternative. Once the implementation process begins the change is monitored and evaluated for effectiveness. If unwanted effects are noted, the change process can be altered or adapted to

reach the predetermined result or the unanticipated effect can be adopted into the final result if it provides a benefit to the organization.

Another technique in formal change management methodology clearly promoted by Deming's Plan, Do Study and Act (PDSA), Tom Peters' champions of change and the CFEMS Change Management Model is to execute change first only as a pilot program with limited organizational implementation. Using this methodology, the influence of the change on a limited aspect of the organization can be monitored and adjustments can be made prior to the change being implemented throughout the entire organization. Peters writes of a workgroup being able to try the proposed change 'off-line" so the impact can be studied without adversely affecting the overall organization (Peters, 1985). The study piece of the PDSA model also speaks to analyzing the results of a piloted change. The intent is to use the results of the study to then make the necessary adjustments in the process so that the final implementation to the organization does not contain the flaws or untoward affects that were evident in the pilot. This disciplined approach, theoretically, results in a final product that does not produce unwanted influences on the organization.

Seemingly as important as the model used is how organizational change is led and managed. Literature review reveals that classifying the type of change as technical or adaptive is important prior to beginning the change management process. Technical change is fairly straight-forward and deals with existing resources, processes, procedures and practices. Adaptive change is related to changing people's attitudes and behaviors and it much more complex and difficult to achieve. The primary mistake that many leaders make is trying to initiate change using a technical approach when an adaptive approach is truly called for (Heifetz & Linsky, 2002). In addition to identifying the type of change needed, it is important that the stages of change be

communicated. People affected by change must understand when the old way of doing business

has ended, how long the transition to new is estimated to take, what is involved in that transition,

and most importantly, when the new way of doing business has begun. ([FEMA, USFA, NFA],

2004). The makeup of the organizational change agent is also to be considered. Kotter (1996)

recommends a "guiding coalition' that contains a mixture of personnel with positional power,

expertise, creditability and leadership. In today's business and cultural environments, it is rare to

find a strong, charismatic leader who can lead and manage true organizational change solely

based on his or her power and influence (p. 57). Many organizations have individuals that

manage change but often the organizational leaders fail to lead change and communicate its

importance to their members.

In summary, the literature research performed in relation to the first question revealed

that many different change management processes, tools, techniques and methodologies are

employed by public and private sector organizations as well as academia. Based on the amount

of literature reference available, change management is a major subject matter for consideration

when leading and managing an organization. Given equal consideration in academic research is

the principle that organizational changes must be forged through strong leadership in order for

them to be successful. Much of the literature reviewed spoke of an overwhelming resistance to

change within organizations due to several aspects of human nature including fear of failure,

maintenance of the status quo and interpersonal relationships (Gasaway, 2004). Leading change

is an important aspect of overcoming this resistance, as simply managing change many times

does not completely address all of these organizational dynamics and complexities.

2. What, if any, are the organizational change processes currently being used by CFEMS?

Document research and interviews of the organizational leadership revealed that several different change management models, methods and tools are used within Chesterfield Fire and EMS. The CFEMS *Strategic Management Guide* has within it, a change management model that is promoted for use within the organization (Chesterfield, 1999). As its name implies, this guide is the primary document, which, in theory, directs the significant changes on which the organization embarks. The CFEMS Change Management Model outlines a multi-step process to guide organizational change and takes into account the affects of change on the department. It is designed to facilitate identification of forces that are resisting and supporting the change, develop the goals and objectives that are aspired to, document the techniques and methods used to manage the change, and identify who should be leading the change and how it will be communicated. The final two phases of the model detail how to pilot the change for a segment of the organization within a defined timeline, overcome organizational resistance, create a sense of urgency and interest in the change and evaluate the results of the pilot prior to full implementation in the organization.

The organization also periodically uses a change management cycle, which is taught in Chesterfield University School of Quality Management classes and is based on Deming's PDSA model (Chesterfield County, 1999). It is interesting to note that although used as a change management tool by many organizations, the PDSA model is in reality just one aspect of Total Quality Management (TQM) that is promoted by some as more of a management philosophy than a management system (Hellsten & Klefsjo, 2000). Some aspects of this model are also included in the department's *3-P Management Model Form*. The 3-P Form, which can be used as a simple start-up form or a more in depth process management tool, is intended to be completed for each and every project, process or program implemented within the organization. This form,

which contains a number of change management techniques, enables users to identify a number

of aspects that should be considered when initiating organizational change. These include

identifying the overall goals and objectives, designating the workgroup team members,

developing work breakdowns and data analysis tasks, producing activity diagrams and timelines,

and determining budgets and communications methodologies.

Literature review also revealed that in 2001, a Revenue Recovery Project Management

Team elected to use the NFA change management model taught in the *Strategic Management of

Change* class (Avsec, R. 2002). A department Integration Workgroup that was developed to

improve the integration of volunteer personnel within the organization also previously utilized

this model. Although this model is familiar to a number of CFEMS personnel by virtue of their

attendance at NFA courses, it has not been accepted or promoted as the default for managing

change within the organization.

To gain further insight into the change management efforts used by the organization,

personal interviews were conducted with CFEMS Fire Chief Paul W. Mauger and Deputy Chief

of Emergency Operations, James Graham. Chief Mauger had recently been promoted to fire

chief having worked his way through the organizational rank structure. Deputy Chief Graham is

also a long-time career employee and has participated in a number of organizational initiatives

including serving as co-chair, since its inception, of the department's Strategic Planning Steering

Committee. During their respective interviews, both men acknowledged that the organization

uses several different ways of managing change and that no single methodology was a default for

the department. Both also acknowledged familiarity with several change management models

and noted that they had personally used or participated in workgroups that had used different

models.

In referencing the PDSA cycle of change, Deputy Chief Graham noted that the organization tended to spend a great deal of time planning for change and then many times, failed to move from the planning aspect of the cycle to implementation. The typical scenario he cited as causing this to happen results from a workgroup developing detailed plans in support of an organizational initiative and then handing those plans over to individuals or another group for implementation. Rather than enacting the intended plan, the implementation group then goes back into the planning process, reworking the original plan. In these situations the "do" of the PDSA cycle is never initiated and the planned changes are not moved forward.

Both of these organizational leaders also expressed that organizational change is managed using more informal methods. The most common change management tool cited in these interviews was organizational communications. Proposed changes are introduced to the department by way of various communications methods including meetings, memos, document drafts, intranet postings and direct (face to face) communication between supervisors and subordinates. Feedback and response from these communications is then reviewed and analyzed to determine the organizational impact as perceived by the members. The proposed change can then be enacted as originally envisioned, modified to account for suggested improvements and or organizational resistance, or sent back to be completely reworked based on overt reaction received during its initial vetting. Both leaders expressed the importance of using organizational communications to properly manage change.

In his interview, Chief Mauger noted that Chesterfield County also employs a performance planning process whereby the various county departments maintain an individual organizational plan, which relates and is linked to the goals and objectives found in the *Chesterfield County Strategic Plan*. Individual department organizational plans are also

supported by various divisional business plans within each county department. Each of the

performance plans and their associated business plans have change management methodologies

built into them to guide organizational change from one year to the next. The county's budget

procedure also maintains a number of processes for managing budget changes from year to year.

Deputy Chief Graham also spoke of the positive affects of employing cross-functional

teams to lead and manage change. Similar to the "guiding coalition" promoted by Kotter (1996)

and the 'skunk works" that Peters (1985) endorses, CFEMS has successfully used cross-

functional teams made of up personnel from different segments of the organization that brought

the prerequisite knowledge, skills and abilities to a temporary workgroup assignment in order to

enact significant organizational change. These teams have been called upon to tackle several

difficult issues including deployment of the aforementioned revenue recovery system and a

review of the provision of emergency medical services, specific to advanced life support

practices, within the county. These cross-functional teams have a history within Chesterfield

County as the TQM business environment promoted within county government has made

multiple uses of process action teams to refine and improve business practices.

Neither Chief Mauger nor Deputy Chief Graham honed in on or promoted a specific

change management model for the organization during their respective interviews. Both cited

multiple methodologies used in the department inclusive of formal models and more informal

ways of managing change. And both promoted leadership and communication as critical aspects

in managing organizational change. Independently each chief noted that although the

organization had multiple change management tools at its disposal, there was infrequent use of

the tools and too many variations in which of the tools were utilized. Each noted the need for

more organizational discipline in managing change and using change management models. The

chiefs also acknowledged that leading and managing change were some of the more difficult characteristics of their positions but expressed how important this was to the overall wellbeing of the organization.

In addition to literature research and interviews, a survey of CFEMS personnel was conducted to provide insight into their views and opinions as related to organizational change management in CFEMS. The organization's middle managers were selected as they were identified as being the employees most likely to have been tasked with leading and managing change within the department. The intent of soliciting feedback was to determine how these individuals viewed the organization's effectiveness in managing change and their awareness of change management methods. A survey instrument was constructed which was delivered to the all CFEMS career, civilian and volunteer middle managers via an internet survey instrument service. The surveyed members consisted of 38 personnel inclusive of all 25 career battalion chiefs, 9 volunteer district chiefs and station coordinators, and 4 civilian and uniformed division managers of the organization. The survey instrument was constructed primarily using a 5 point Likert scale via Zoomerang™ commercial web-based survey software. An e-mail was sent to the survey members introducing the survey, inviting them to participate and providing a uniform resource locator (URL) to access the survey via the internet. Of the 38 surveys sent, a total of 28 personnel visited the survey site with 21 personnel, or 55% of the invited survey participants, actually completing the survey. While most of the questions relate to how CFEMS currently uses change management methodology, several questions also related to how the organization could improve upon existing practices.

The feedback received was as follows (noted as number of responses and percentages):

1. Significant organizational change has occurred within Chesterfield Fire & EMS (CFEMS) during the past few years.	
Strongly Disagree	0 (0%)
Disagree	0 (0%)
No Opinion/Neutral	1 (5%)
Agree	10 (48%)
Strongly Agree	10 (48%)

Virtually all of the respondents agreed that the organization had experienced significant change during the past few years. Change was not narrowed defined in the question and the responses to this question could also be interpreted to possibly be inclusive of other events such as organizational leadership changes recently experienced, employee retirements and so forth.

2. Overall the organizational changes have had a positive impact on CFEMS.	
Strongly Disagree	0 (0%)
Disagree	5 (24%)
No Opinion/Neutral	4 (19%)
Agree	8 (38%)
Strongly Agree	4 (19%)

The responses to whether change was positive for the organization were more evenly divided with the majority either responding positively or being neutral. One quarter of the respondents did not think that change had had an overall positive organizational impact.

3. CFEMS routinely manages change using organizational change management methods and tools.	
Strongly Disagree	1 (5%)
Disagree	8 (38%)
No Opinion/Neutral	7 (33%)
Agree	5 (24%)
Strongly Agree	0 (0%)

The question of whether the organization routinely uses change management tools and methodologies had an overall negative response with 43% both disagreeing or strongly disagreeing, 33% remaining neutral and only 24% answering the question positively.

4. I am familiar with change management methods and tools that I may use when managing organizational change within CFEMS.	
Strongly Disagree	1 (5%)
Disagree	3 (14%)
No Opinion/Neutral	0 (0%)
Agree	16 (76%)
Strongly Agree	1 (5%)

The vast majority of middle managers, 81%, responded that they were familiar with change management tools and methodology that they could use in the capacity as change management agents for the organization. Four personnel (19%) answered that they were not familiar with the availability of these tools and techniques.

5. I have had formal training on change management methods and tools.	
Yes	17 (81%)
No	4 (19%)

Corresponding with the majority that answered the previous survey question positively, the same 81% of respondents acknowledged that they had had change management training. This is the only question in the survey where comments were invited from the participants. Among the comments provided with the responses to this question were:

- Minimal exposure to this in one class.

- This training was conducted within the organization when a guest instructor was brought in to teach the change management model that was used by the NFA.

- Enjoyed the classes, but do not think the model is used enough.

- Training Not Sufficient.

- TQI Change Management Modeling via Chesterfield University-Self established Local/Municipal based Employee Educational Institution

- I have read the NFA course materials but have not attended the class.

- I believe that top management thinks we have received adequate change mgt. training. We have not received appropriate training for us to manage the many change initiatives that continue to exist at the same time.

- Training has been infrequent and insufficient. We have been left to learn on our own or OJT.

- We seem to be more concerned with the process and not on the end product.

As noted in the results of this question, the vast majority of the respondents answered affirmatively. However, when given the opportunity to qualify those answers, roughly half of the respondents provided comments to the effect that the organization had not provided enough training or that what was provided was insufficient and did not meet their needs. The nine responses noted above are inclusive of all of the written comments provided for Question #5 from the 21 personnel participating in the survey.

6. I feel that using organizational change management methods and tools allows CFEMS to better manage change.	
Strongly Disagree	0 (0%)
Disagree	2 (10%)
No Opinion/Neutral	6 (29%)
Agree	8 (38%)
Strongly Agree	5 (24%)

The majority of respondents to the survey agreed that using organizational change management methods and tools provides benefit to the organization with 13 people (or 62%) answering affirmatively. Six people were neutral and only two people (10%) answered negatively. This is important in that it shows a general acceptance by the managers of the organization of the need to employ formal tools and techniques to manage change.

7. I am aware of or familiar with additional change management methods and tools that other departments or agencies use that CFEMS does not make use of.	
No	12 (57%)
Not Sure	5 (24%)
Yes	4 (19%)

An overwhelming majority of the survey respondents (57%) did not know of or were unsure of change management methods and tools that are used by other departments or organizations. Four personnel (19%) answered that they were.

8. When an organizational change is about to occur, it is clearly communicated to the organization.	
Strongly Disagree	3 (14%)
Disagree	6 (29%)
No Opinion/Neutral	0 (0%)
Agree	12 (57%)
Strongly Agree	0 (0%)

Literature research indicates that communications is an important aspect of change management. Responses to the question as to whether the organization communicated change clearly were largely divided with 12 respondents (57%) agreeing that it was and 9 respondents (43%) answering that change was not clearly communicated.

9. As a leader and manager in CFEMS it is important that I have change management methods and tools at my disposal.	
Strongly Disagree	0 (0%)
Disagree	0 (0%)
No Opinion/Neutral	3 (14%)
Agree	9 (43%)
Strongly Agree	9 (43%)

18 of the 21 people answering the survey felt positively that it is important that they have change management methodology and tools at their disposal. Three of the respondents were neutral on the question and none answered negatively.

10. In an organization the size of CFEMS, the management of change is an important aspect of organizational leadership and management.	
Strongly Disagree	0 (0%)
Disagree	0 (0%)
No Opinion/Neutral	0 (0%)
Agree	11 (52%)
Strongly Agree	10 (48%)

All of the respondents either agreed or strongly agreed that the management of change is an important aspect of their positions as organizational leaders and managers.

11. I feel that CFEMS could employ better change management methods and tools to improve organizational change management.	
Strongly Disagree	0 (0%)
Disagree	0 (0%)
No Opinion/Neutral	7 (33%)
Agree	8 (38%)
Strongly Agree	6 (29%)

Most of the people answering the question either agreed (38%) or strongly agreed (29%) that CFEMS could improve organizational change management by utilizing better methods and tools. No one answered negatively and seven respondents (33%) were neutral on the response. These responses reinforce the comments made on Question #5 where almost half the surveyed population made comments about the inadequacy of change management training with CFEMS.

12. Overall, organizational change within CFEMS is well managed.	
Strongly Disagree	2 (10%)
Disagree	8 (40%)
No Opinion/Neutral	4 (20%)
Agree	6 (30%)
Strongly Agree	0 (0%)

Overall, half of the middle managers answering the survey did not think that organizational change was well managed with CFEMS. Four people (20%) were neutral and six (30%) agreed that change was well managed. No respondents strongly agreed with the question.

Two additional questions were posed to gain a demographic profile of the respondents. Of the 21 people who participated, one (5%) was between 26 and 35 years of age, seven (33%) were in the 36 to 45 year age group, 11 (52%) were between 46 and 55 years old and two (10%) were older than 55 years. In profiling the participant's gender, 19 of the 21 respondents were male.

To summarize, the research seeking to answer what, if any, are the organizational change processes currently being used by CFEMS found a number of established change management models, tools and techniques that are presently or have been previously used to perform this important organizational function. Interviews with department leaders acknowledged that different change management methods are used within the organization. Further, the results of a survey of CFEMS personnel shows that of those that are tasked with managing change, the majority are familiar with change management methods, tools and techniques and that many agree to having used them. However, the majority of middle managers who responded to the survey do not feel that the organization is effectively managing change and most believe that more can be done to improve in this management area.

3. What, if any, organizational change processes are departments of similar size using?

As noted in the literature review and by virtue of e-mail exchanges with Battalion Chief Matt Smolsky from the Prince William County, Virginia Department of Fire and Rescue, that department primarily utilizes a *Framework of Analysis* document when they implement organizational change (Smolsky, personal communications, January 9, 2006). This document

guides the user through a series of questions designed to identify the key features that the change

will affect and develop alternatives to enacting the change. Chief Smolsky, similar to the

interviews of the CFEMS leaders, comments that Prince William County Fire and Rescue's

primary methodology for managing change is through effective organizational communications.

He observes that the department's leaders strive to conduct face-to-face communications with

members whenever significant change is about to occur. This includes the participation of the

department's chief and assistant chiefs traveling to individual worksites to convey the message

of impending change (Smolsky, personal communications, January 9, 2006).

The fire departments of Virginia Beach, Virginia (Sargent, 1996), Montgomery County,

Maryland (Love, 1997), Henrico County, Virginia (Caputo, 2005) and Fairfax County, Virginia

(Herbert, 2006) all do not utilize formal change management methodologies. Henrico County's

Assistant Fire Chief Nick Caputo, who oversees the department's administrative services, notes

in personal communications conducted during the research of this paper, that he has used the

change management model from the former NFA *Strategic Management of Change* (SMOC)

class on several occasions. This use of the SMOC model is his own initiative and is in lieu of any

formal processes used by Henrico County's fire department. The City of Virginia Beach's fire

department operates in a Total Quality Management (TQM) business environment, as does

Chesterfield County. Literature research indicates that this management approach has not been

well received among city employees and that change management continues to remain a problem

within the department. Lack of proper management of organizational change has been a

frustration among the members of the City of Virginia Beach's department as documented in

Battalion Chief Chase Sargent's (1996) Executive Fire Officer Program Applied Research Paper

entitled *Managing and Creating Change in Organizations*.

Personal communications with Susan Herbert, Fairfax County Fire Department's Strategic Planner, reveals that a formal change management model is not used within that department. Fairfax does, however, maintain a formal system of categorizing change based on the urgency and perceived time that it may take to accomplish the related tasks. Large scale initiatives resulting in organizational change are handled by virtue of study and analysis assigned to a workgroup or taskforce. This group then provides recommendations to the department's chief who conducts what are characterized as "town meetings" with the people affected by the proposed initiative (and potential resulting change). Based on the feedback provided during these meetings the chief then decides how to move forward with the recommendations.

In preparing for the literature review in support of this paper, this author reviewed the abstracts of well over one hundred applied research papers supplied by the staff of the NFA Learning Resource Center. The subject of the papers was change management. It was readily evident from reviewing the abstracts that change management is problematic for many fire service organizations. While many of the papers were written about managing change of specific organizational impacts (e.g. new chiefs, new services, etc.), a moderate number were written regarding the overall lack of change management within the author's respective organization. This observation was borne out during the research of specific fire departments of similar size and make-up to CFEMS. As noted above, research indicates that many medium to large fire departments do not utilize any formal change management methodologies.

4. What are the organizational change management processes and practices that CFEMS could use to improve the outcome of organizational change?

Literature review indicates that a number of change management tools and methodologies are available to CFEMS. Both private and public sector organizations have any

one of a number of possible ways to choose from to manage change. Several of these models are already part of the department's arsenal for managing change but are sporadically used and as such, included within the research results related to this question. Within the fire service the APIE change management model is available for use by those departments wanting to formally and systematically manage change. This model is currently taught in the NFA Executive Development course and promotes four phases including analysis, planning, implementation and evaluation / institutionalism. In *Managing Fire Services*, Granito and Coleman (1988) write of a seven step change management model which includes identifying the problem; listing alternatives; developing solutions; setting goals and objectives; implementing the chosen solution(s), monitoring the implementation; and evaluating the results of the implementation. Prince William County, Virginia's fire department uses a framework for analysis tool to manage change within their organization. This tool guides the users through a series of questions designed to identify and manage the various aspects of impact that the proposed change may have on their organization.

Internal to CFEMS' organizational structure the department's *Strategic Management Guide* contains an organizational change management model. This multi-step process is designed to guide organizational change and like the APIE model takes into account the multiple affects of change on an organization. The CFEMS model utilizes force field analysis to identify driving and restraining forces, identifies the goals and objectives that the initiative is attempting to achieve, provides techniques and methods for initiating change, and identifies who should be leading the change and how it will be communicated. The final two phases of the model detail how to pilot the change for a segment of the organization within a defined timeline, methods to overcome organizational resistance, creating an urgency and interest in the change and means for

evaluating the results of the pilot prior to final implementation in the organization. Also available to department members is a *3-P Management Model* planning process that is designed to be used to manage process changes and document all new and revised departmental programs, projects and processes. This detailed document contains many of the same features of the APIE and CFEMS change management models.

Chesterfield County manages business practices within the framework of a total quality management environment. One tool promoted within TQM is the Deming's Plan, Do, Study, Act cycle. This approach to change management disciplines users to plan for the change, enact the change (in a pilot setting, if possible), study the results of the change and then act to institutionalize the change throughout an organization. Many aspects of the PDSA cycle are found in other change management methodologies including the APIE model, CFEMS' strategic change management model and the department's 3-P document. From a general business approach, literature review reveals any one of a number of models, tools and techniques available and in use within the private sector business world. Like the fire service specific models, the vast majority are of the generic business change management models are cyclical in nature and involve multi-step, disciplined approaches to enacting organizational change.

<div align="center">Discussion</div>

Research conducted in support of this effort reveals that the management of change is a significant concern for many public and private organizations. Like other businesses, the fire service, in spite of its ability to quickly adapt to emergent situations during emergency responses, is not immune from struggling with the proper implementation and management of organizational change. Chesterfield Fire and Emergency Medical Services certainly falls into this category. Having initiated a number of large-scale projects during the past several years, the

department has suffered through some of the pitfalls of poorly managed change. Like other public and private businesses, CFEMS continually struggles to maintain its equilibrium in the face of what seems like a constant state of organizational change. Accordingly, literature research shows that change management is a major topic of interest for people tasked with leading and managing organizations. Today's global business environment requires organizations to constantly change and reinvent themselves to stay competitive and survive (Kotter, 1996; Peters, 1985; Prichett, 1996). This need for change almost always results in organizational conflict and resistance of the change from the people who make up the organization (Byrnes, 2005; Gasaway, 2004; Lucas, 2004).

The number of change management models, methodologies, tools and techniques available to today's business leaders are as varied as the business organizations themselves. Literature research reveals that many of the models used by business and industry, like those used in the fire service, are cyclical and involve a series of steps designed to guide the organization through the change and ensure a positive outcome. The number of steps vary dependant on the model in use but virtually all address the analysis of change, planning for change, implementation of change and an evaluation of the results of change to allow for adjustment and eventual institutionalization within the organization. This basic description fits the APIE model taught in the Executive Development course at the National Fire Academy (FEMA, USFA, NFA, 2004), Deming's Plan, Do, Study, Act (PDSA) cycle and the organizational change management model found in the CFEMS *Strategic Planning Guide* (Chesterfield, 1999).

Regardless of the model being used, what seems to be most important is that the organizational members understand that a change management model exists and that they have

been trained on its use. The final piece of this puzzle is to ensure that the model is consistently applied when change is initiated within an organization. Failure to always use the same disciplined approach during significant organizational change frequently results in employee frustration and feelings that change is inappropriately managed. Lacking a standard process to follow also supports a natural human urge to continually reinvent methods for conducting standard organizational tasks as each successive workgroup or person seeks to put their individual stamp on their work.

This dynamic is evidenced in the results of a survey of CFEMS middle managers conducted in support of this research. In this survey, designed to assess the middle manager's views on organizational change management, only 50% of the personnel answering the survey felt that change was properly managed within the department. The survey further revealed that the department's managers acknowledged widespread awareness of change management methodologies and that the vast majority had been trained on these tools. The managers also agreed that proper change management was vitally important to their organization. Yet, in spite of the fact that several different change management tools and methods had been taught within the department and were readily available for use, half of the personnel surveyed felt that change was insufficiently managed within CFEMS. This observation was validated during interviews of CFEMS leaders conducted in support of this research. Both the fire chief and a deputy chief independently observed that the department has a number of alternatives available to manage change but that the membership is not well disciplined or practiced in doing so. Failure to utilize one formal change management model then leads to a lack of structured change management in general or different groups using different methodologies for each successive initiative. As noted during Deputy Chief Graham's interview, by virtue of its inclusion in the strategic management

guide, the CFEMS *Change Management Model* should theoretically be the default organizational tool but is, in fact, very rarely used. And both Fire Chief Paul Mauger and Deputy Fire Chief James Graham also acknowledged in their interviews that the *3-P Management Model Form*, which contains change management tools and is designed to document all organizational programs, projects and processes, has not been widely and consistently used for its intended purpose.

Literature research also illustrates that leading change is an often-overlooked aspect of change management. While much has been written about the necessity of properly managing change, how organizations lead change is at least of equal importance. Proper communication is consistently identified as one of the most critical aspects of leading change. Accurate and effective communication of change is noted as being of importance in virtually all of the literature reviewed for this paper. Both of the CFEMS leaders interviewed also made reference to the criticality of communicating the impact of change to organizational members. And the organizational survey results addressed this emphasis with the personnel having been surveyed split almost fifty-fifty as to whether change was well communicated within CFEMS. The informal and varied communications processes (e.g. meetings, memos, etc.) for vetting change within CFEMS are not as detailed and in depth as using any of the more formal change management models, but seem to be more comfortable to many people tasked with managing change within the department. This is positive in that proper communication is a key aspect of leading change but can also have negative aspects as simply communicating change rather than using a standard organizational management model may result in some aspects of the change being overlooked.

People affected by change must understand the phase of change that is occurring. The first phase of change is the end of doing things "the old way". The neutral phase is that period when the change is occurring and the beginning phase is the when the new way of doing business begins. (FEMA, USFA, NFA, 2004). The neutral phase may last seconds, minutes or even years. What is most important in leading change is that these phases are clearly evident to those affected by the change. Another common mistake in managing change is failing to identify what type of change needs to occur. Heifetz and Linsky (2002) write of two types of change; change which requires a technical approach involving existing organizational practices, procedures and resources and that, which requires an adaptive approach. The adaptive approach is more difficult because it involves changing people. Because they more directly affect people and their behaviors, adaptive changes often are avoided. But many problems can't or shouldn't be solved using a technical change approach. These situations call for adaptive changes and it is important that organizational leaders clearly identify which type of change is called for and understand the differences in approach between technical and adaptive change.

Like adaptive change management efforts, managing change associated with technology initiatives presents its own set of challenges (Love, 1997). Many times the technology being implemented does not immediately perform as envisioned. In other instances, due to organizational resistance, personnel do not embrace the technological change. Some change management methodologies promote initiating technological change with a broad goal in mind and adapting to the technology as it is implemented (Orlikowski & Hofman, 1997). The difficulty with this tactic is the dynamic and adaptive nature used to manage the change. Many people are not comfortable without firm direction and a distinct vision as to what the change will look and feel like once it is implemented. Initiating a project with a vague vision as to the end

result (due to the nature of the technological changes being implemented) would be difficult for

many organizations and the people that work within them to deal with. This approach may cause

more tension and conflict than using normal change management techniques.

One change management theory promotes that major organizational and cultural change

is not always intentionally initiated or even controlled but rather spreads like an epidemic when

one small idea or trend takes hold and is adopted by a majority of a population (Gladwell, 2002).

While this is probably true for cultural items, most organizational leaders would be reluctant to

rely on simply introducing an idea or concept and hoping that it takes root within their

organization. This theory promotes accepting the idea that change occurs outside of normal

control methods and that one should realize that unexpected change can occur without formal

initiation by people or organizations. While the latter is periodically true, this approach is a very

reactive one that would not work well in most public sector business organizations.

Fire service organizations experience the same pressures as do other businesses as

budgetary constraints and continuously evolving technologies require departments to adapt and

change to stay effective in their meeting their organizational mission. And, as noted in several of

the fire service-related research papers that were reviewed, change management and the use of

change models and tools is no longer just an element of managing organizations in the private

business environment (Sargent, 1996). Leaders and managers in the public sector must also

become adept at dealing with change within their organizations (Prouty, 2004).

In reviewing literature, conducting interviews and assessing the results of a survey of

department personnel on change management, it is evident that Chesterfield Fire and EMS

experiences many of the same challenges in managing change that most other organizations do.

One advantage that this organization does have is leadership that recognizes the need to formally

deal with change and has taken the initiative to do so in many instances. As evidenced by the various methodologies referenced in this research, CFEMS is not without a number of means that can be employed to manage change. All of those noted have been used at one time or another to do so during large-scale department initiatives. The department has also made frequent and effective use of dedicated project management teams to manage large-scale change. This technique, as touted by several authorities (Kotter, 1996; Peters, 1985) is also vital to properly managing significant, multi-faceted change that affects an organization.

Having formal change management processes that are accepted and promoted within the organization is not necessarily a fire service standard. Many like-sized departments surveyed for this research indicated that they did not utilize any formal change management methodologies (Caputo 2005; Herbert 2006; Love 1997; Sargent 1996). However, the CFEMS department's use of change management tools is not foolproof. As evidenced by this research and as acknowledged in interviews with department leaders, the organization does not employ one single, consistent method or tool that serves as the department standard when managing change. This leads to inconsistent application of change management methodologies, which, based on the survey results and analysis of interviews, has created some confusion and frustration among department personnel.

Specific to the four questions presented as the primary focus of this research, there are any one of a number of change management processes and tools available to public and private business organizations. CFEMS currently employs several tools and one formal change management model for use within the organization. However, the department has not adopted one single method as the standard for managing organizational change. In comparing CFEMS to other departments of similar size, many of the departments researched acknowledge the need to

formally manage change but only a few were found during this research that actually used prescribed change management methodologies. Concluding this discussion, CFEMS already has the tools and processes needed to effectively manage change. Further, the department's middle managers recognize, acknowledge and accept the need to properly manage change. Rather than developing a new model or process, the department should formally adopt one of its current models that are in use as the primary tool for managing change within the organization and enforce its use throughout the organization.

<div align="center">Recommendations</div>

The information gained from research conducted for this work has convinced this author that proper management of change is a critical aspect of leading today's fire service organizations. Change is constant within business organizations and the fire service is not immune from these pressures. Fire service leaders must adopt and make use of formal change management methodologies to guide their department though significant organizational change. Failure to agree to, train on and implement a standard organizational change management model will lead to project failures and ultimately cause morale problems within the organizational membership. Research reveals that it is important for fire departments to understand the impacts of change and appropriately plan for the organizational consequences that change causes. CFEMS enjoys an advantage of having organizational leaders and managers who understand these impacts. Building on an already established foundation of organizational awareness, existing methodologies and established training, department personnel need only to follow the additional steps of adopting a formal model, providing some remedial training and adhering to a standard, disciplined approach to change management to place themselves at the forefront of their institutional peers within the fire service.

Recommendations resulting from this research are:

1. The department should adopt a formal change management model and make it the default for managing change within the organization. All significant organizational change should be managed using this model. The department should either chose to use its existing model contained in the CFEMS Strategic Planning Guide as is, modify it to suit present organizational needs or develop a hybrid model from the one of the several tools presently in use within the department (e.g. *3-P Management Model* form).

2. The department should institutionalize the chosen model by clearly communicating expectations of its use when managing organizational projects and initiatives. The department should also provide comprehensive training on the model for middle and upper level management personnel.

3. CFEMS should develop and adopt a standard, multi-faceted process for communicating organizational change. The department has many tools at its disposal including memo, intranet, closed-circuit television channel and face to face meetings. A standard way of communicating change should be followed in all instances so personnel clearly understand that organizational change is occurring and what the impacts are on the organization.

4. CFEMS should consider utilizing a grading system similar to Fairfax County's so that the department leaders can determine what the potential impacts of pending change are, what level of organizational resources (e.g. workgroup) should be committed to the initiative and what is the realistic expectation of time commitment for the organization to enact the initiative.

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Appendix A

CHESTERFIELD FIRE AND

EMERGENCY MEDICAL SERVICES

3-P MANAGEMENT MODEL

(PROGRAM - PROJECT - PROCESS)

TITLE_____

START DATE_____   DUE DATE_____

SPONSOR_____   MANAGER_____

<u>**AUTHORITY**</u> - This is a statement of why we are working on this program, project, or process, hereinafter called 3-P. It should include a linkage to the Fire and EMS Business Plan and/or division/work unit plan.

<u>**SCOPE**</u> - The scope of the 3-P explains the controlling factors in bringing the 3-P to conclusion. It is a statement of the resources that will be committed to the 3-P and the authority of the Manager. It should include time frame, due dates, budgeted resources, divisions and/or unit assigned to the 3-P and specific responsibilities of the Manager and Team Members.

<u>**GOAL**</u> - A statement of what the 3-P is to accomplish.

<u>**OBJECTIVES**</u> - Statements of the measurable end results that will define success. Usually 3-5 objectives for the 3-P. Objectives should be clearly understood and concise. Use SMART Objectives: Specific, Measurable, Achievable, Results oriented, Time specific.

AGREEMENT

SPONSOR_____ MANAGER_____

The Sponsor and the Manager sign off on the beginning of the 3-P that they agree on the first part of the Project Plan.

TEAM MEMBERS - Team members are the Division and Unit Leaders for the 3-P who have decision-making authority and can commit division and unit resources to the 3-P. They are responsible for their division or unit to accomplish the assigned task within the scope of 3-P and report to the Manager.

The people of that particular Division or Unit will do much of the 3-P work at the division or unit level. Therefore, the 3-P team members are those people who are responsible for other people completing division or unit tasks.

TEAM MEMBERS NAME   POSITION   DIVISION OR UNIT

_____   _____   _____

_____   _____   _____

WORK BREAKDOWN - List all of the necessary tasks to complete the 3-P.

DATA ANALYSIS – Present final analysis of data collected to determine current status and/or root causes.

TASK RESPONSIBILITY MATRIX - Complete the matrix by identifying who is responsible for the successful execution of each task.

TASK	NAME	NAME	NAME	NAME
#1				
#2				
#3				
#4				

ACTIVITY NETWORK DIAGRAM - Use the time estimate model to give an

approximate amount of time it will take to complete each task. Develop an

Activity Network Model to show the interdependency of tasks and schedule

sequential and simultaneous tasks.

RESOURCE BUDGET - Develop a 3-P Resource Budget to identify the

resources allocated to the 3-P by type of resource and unit of time.

RESOURCES: UNITS OF TIME:

Personnel   Month

Materials   Quarter

Services   Fiscal Year

Capital

	FY	FY	FY
PERSONNEL			
MATERIALS			
SERVICES			
CAPITAL			
TOTAL			

AGREEMENT BY TEAM MEMBERS - Each team member will sign off on the 3-

Plan. This is an agreement of understanding of the plan and a commitment of time,

effort, and resources to complete assigned tasks and work toward the successful

completion of the 3-P

TEAM MEMBERS   DATE

_____   _____

_____   _____

_____   _____

MEETINGS AND REPORTS

MEETINGS

Schedules

Date and Time: Location: Purpose:

Agendas

All meetings will have an agenda. The agenda will include: attendees, purpose of

meeting, who is responsible for reporting status or information, specific items to be

discussed and time allotted for each item. Meetings shall be recorded as to what was

discussed, issues affecting the 3-P, decisions made, tasks assigned, and status of the

3-P.   The meeting record shall be filed with all other reports.

REPORTS

Task Completion Report - Report by a team member to the Manager, that an identified

task is completed. Completed as necessary. The following is the format of this report.

> TO: 3-P Manager
>
> *FROM: Team Member*
>
> DATE:
>
> 3-P TITLE:
>
> Task # _x_ completed on schedule (before or after due date) within task budget
>
> (under or over budget). State reasons only for tasks that are over due or over
>
> budget.

Status Report - Report by Manager to Sponsor. Reports the status of the 3-P on a

predetermined schedule or when major objectives have been met. The following is the

format of this report. Completed as necessary.

> TO: 3-P Sponsor
>
> FROM: 3-P Manager
>
> DATE:

3-P TITLE:

X   State the tasks completed or major objectives met.

X   State the progress of the 3-P in terms of being on schedule and within

budget.

X   State any changes in the projections of the 3-P being completed as defined in

the scope of the 3-P.

Projection and Exception Report - Report by team member to Manager or to Sponsor.

Reports any change of projections and/or exceptions to the 3-P being completed within

the scope of the 3-P. This would include the 3-P not being completed within the stated

time frame, within budget, or not meeting the stated objectives of the 3-P. Any change

of projections or any exceptions in the 3-P should be immediately reported to the

Manager and/or Sponsor so mid-3-P corrections can be made. Completed as

necessary. The following is the format of this report.

TO: 3-P Manager or 3-P Sponsor

FROM: Team Member or Manager

DATE:

3-P TITLE:

X   State the exception in the progress of the 3-P, over time, over budget, not

meeting objectives.

X   State the reason for the exception, what caused this situation.

X   State the impact the exception will have on the completion of the 3-P.

X   State the solution alternatives to correct the situation.

X   State the revised 3-P projections if the situation cannot be corrected and

the project will not be completed within the scope of 3-P.

Completion Report - Report from the Manager to the Sponsor stating that the 3-P is

completed. The following is the format of this report.

TO: 3-P Sponsor

FROM: 3-P Manager

DATE:

3-P TITLE:

X   Statement of 3-P completion

X   Summary report of objectives met

X   Summary report of resource expenditures

X   Include any measurements used to document completion

X   Include any processes developed

Appendix B

CHESTERFIELD FIRE & EMS

CHANGE MANAGEMENT MODEL GUIDE

PHASE I - ANALYSIS

1. What are or will be the changes?

2. Will this change(s) create a destabilizing force(s)? How? What are they?

3. Who and what will this change impact?

4. What change is required?

> Analyze: Perspective of change
>
> Magnitude of change
>
> Objective of change

PHASE II - PLANNING

1. What are the forces for and against change?

2. Who can set the vision for the change? <u>Involve this person(s) and establish a plan.</u>

3. What is needed once change is implemented?

   - Generate desired position/state to be achieved

   - Evaluate completeness and soundness of change

   - Develop a road map "big picture image" to achieve change

   - Generate ideas for inspiration and emotional appeal to change

4. What are the target goals and objectives of the change? Evaluate the goals and objectives

5. What method of "change employment" will be used?

   - Technical Method

   - Structural Method

   - Managerial Method

   - People Method

6. What techniques will be used to promote change?

   - Facilitative Techniques

   - Informational Techniques

   - Attitudinal Techniques

   - Political Techniques

7. Create plan details: how, when, where, what, who, and why

   - Ensure support and that change agents understand their responsibilities

PHASE III - IMPLEMENTATION

RUN PILOT/TEST PLAN/PERFORM FOR IDENTIFIED PERIOD OF TIME

"Anticipate unanticipated difficulties and put the following in place"

1. Create an environment of shared vision and common direction

   - Have a good communication strategy

   - Line up political sponsorship

2. Minimize initial resistance to change through effective communications

3. Create a sense urgency and pace for change

4. Develop and implement change-enabling mechanisms

   - Practical mechanisms

- Symbolic mechanisms

5. Implement planned change methods and strategies

PHASE IV – EVALUATE / INSTITUTIONALIZE / STANDARDIZE / MAINTAIN

1. Evaluate against: goals, described future position/state, how well established/institutionalized change has become, how rapid change was accomplished, cost to individuals and organization, the number of unanticipated actions/occurrences and resistance.

2. Evaluate need to improve change approach

3. Continue to monitor and maintain

Appendix C

Organizational Survey of CFEMS middle managers

1. Significant organizational change has occurred within Chesterfield Fire & EMS (CFEMS) during the past few years.

     Strongly Disagree   Disagree   No Opinion/Neutral   Agree Strongly Agree

2. Overall the organizational changes have had a positive impact on CFEMS.

     Strongly Disagree   Disagree   No Opinion/Neutral   Agree Strongly Agree

3. CFEMS routinely manages change using organizational change management methods and tools.

     Strongly Disagree   Disagree   No Opinion/Neutral   Agree Strongly Agree

4. I am familiar with change management methods and tools that I may use when managing organizational change within CFEMS.

     Strongly Disagree   Disagree   No Opinion/Neutral   Agree Strongly Agree

5. I have had formal training on change management methods and tools.   Yes   No

6. I feel that using organizational change management methods and tools allows CFEMS to better manage change.

     Strongly Disagree   Disagree   No Opinion/Neutral   Agree Strongly Agree

7. I am aware of or familiar with additional change management methods and tools that other departments or agencies use that CFEMS does not make use of.

     No   Not Sure   Yes

8. When an organizational change is about to occur, it is clearly communicated to the organization.

     Strongly Disagree   Disagree   No Opinion/Neutral   Agree Strongly Agree

9. As a leader and manager in CFEMS it is important that I have change management methods and tools at my disposal.

Strongly Disagree   Disagree   No Opinion/Neutral   Agree Strongly Agree

10. In an organization the size of CFEMS, the management of change is an important aspect of organizational leadership and management.

Strongly Disagree   Disagree   No Opinion/Neutral   Agree Strongly Agree

11. I feel that CFEMS could employ better change management methods and tools to improve organizational change management.

Strongly Disagree   Disagree   No Opinion/Neutral   Agree Strongly Agree

12. Overall, organizational change within CFEMS is well managed.

Strongly Disagree   Disagree   No Opinion/Neutral   Agree Strongly Agree

13. What is your age?

26-35   36-45   46-55   56-65

14. What is your gender?   Female   Male